



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/654,321	09/03/2003	Susan Vasana	U0568.11.U	4435
7590 Matthew W. Baca Rogers Towers, P.A. Suite 1500 1301 Riverplace Boulevard Jacksonville, FL 32207			EXAMINER PATHAK, SUDHANSHU C	
			ART UNIT 2611	PAPER NUMBER
SHORTENED STATUTORY PERIOD OF RESPONSE 3 MONTHS		MAIL DATE 01/12/2007	DELIVERY MODE PAPER	

**Please find below and/or attached an Office communication concerning this application or proceeding.**

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

**Office Action Summary**

Application No.

10/654,321

Applicant(s)

VASANA, SUSAN

Examiner

Sudhanshu C. Pathak

Art Unit

2611

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on Sept. 3<sup>rd</sup>, 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-17 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-17 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on Sept. 3<sup>rd</sup>, 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)            | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)   | Paper No(s)/Mail Date. _____                                      |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____  | 6) <input type="checkbox"/> Other: _____                          |

### DETAILED ACTION

1. Claims 1-to-17 are pending in the application.

#### *Specification*

2. Applicant is reminded of the proper content of an abstract of the disclosure.

A patent abstract is a concise statement of the technical disclosure of the patent and should include that which is new in the art to which the invention pertains. If the patent is of a basic nature, the entire technical disclosure may be new in the art, and the abstract should be directed to the entire disclosure. If the patent is in the nature of an improvement in an old apparatus, process, product, or composition, the abstract should include the technical disclosure of the improvement. In certain patents, particularly those for compounds and compositions, wherein the process for making and/or the use thereof are not obvious, the abstract should set forth a process for making and/or use thereof. If the new technical disclosure involves modifications or alternatives, the abstract should mention by way of example the preferred modification or alternative.

**The abstract should not refer to purported merits or speculative applications of the invention and should not compare the invention with the prior art.** The Abstract, on lines 17-20 discloses the merits of the invention, and compares the invention to prior art.

#### *Claim Objections*

3. Claims 5, 11-17 are objected to because of the following:

In regards to Claim 11, the claim discloses a detector comprising a receiver, however this should actually be a receiver comprising a detector.

In regards to Claim 12-17, the subject matter claimed is a "system" however the claims depend on independent claim 11 wherein the claimed subject matter is a "detector" (apparatus). A suggested language to include "The apparatus of claim 11.....".

In regards to Claims 5-6, the claims are objected to under 37 CFR 1.75 as being a substantial duplicate of claim 1. When two claims in an application are duplicates

or else are so close in content that they both cover the same thing, despite a slight difference in wording, it is proper after allowing one claim to object to the other as being a substantial duplicate of the allowed claim. See MPEP § 706.03(k).

Appropriate correction is required.

***Claim Rejections - 35 USC § 103***

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. Claims 1-3, 5-8, 10 (method) & 11-17 (apparatus) are rejected under 35 U.S.C. 103(a) as being unpatentable over Saltzberg (4881059).

In regards to Claims 1, 3, 5-11 & 13-17, Saltzberg discloses a method (apparatus) for detecting biphas encoded data (Abstract, lines 1-8 & Column 1, lines 9-11) {Interpretation: The reference discloses receiving and detecting (decoding) Manchester coded data wherein manchester coded data is interpreted as biphas encoded data} comprising: receiving a biphas encoded signal, the biphas encoded signal characterized as including unit bit cells each having a logic value encoded as a mid-symbol signal transition between a first half-symbol signal component and a second half-symbol signal component (Abstract, lines 1-8 & Column 1, lines 9-11 & Fig.'s 1-3) {Interpretation: The reference discloses receiving and decoding manchester encoded data. The above limitation is interpreted as describing manchester encoded data wherein the specification, on Page 2, lines 14-

23 and claim 3 discloses this}; demodulating the first and second half-symbol signal components of a unit bit cell (Fig. 1, element 104, 101 & Column 3, lines 1-3 & Column 5, lines 48-53) {Interpretation: The reference discloses a manchester demodulator wherein the demodulator extracts the timing from the received signal stream, samples the received signal and passes it through a matched filter so as to detect the incoming signal}; and generating a difference signal corresponding to the difference between the demodulated first and second half-symbol components, such that the difference signal may be utilized to determine the logic value of the unit bit cell (Column 4, lines 60-68 & Fig. 1, elements 102, 105). However, Saltzberg does not explicitly disclose a matched filter and timing extractor to be a demodulator. Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention that a manchester demodulator includes a timing extractor so as to extract the clock transmitted with the encoded data and further a matched filter so as to detect an incoming signal and sampling the incoming signal in sync with the transmitter. Furthermore, it would have been obvious to one of ordinary skill in the art at the time of the invention that a matched filter perform the functionality of a correlator and integrating so as to separate the first and second half signal components as is also disclosed in the instant application Specification, Page 7, line 25 & Page 10, lines 9-14.

In regards to Claims 2 & 12, Saltzberg discloses a method for detecting biphas-encoded data as described above. Saltzberg further discloses detecting the logic value of the received unit bit cell by comparing the difference signal with a validity

threshold value (Fig. 1, element 105 & Column 4, lines 46-50). Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention that Saltzberg satisfies the limitations of the claim.

6. Claim 4 is rejected under 35 U.S.C. 103(a) as being unpatentable over Saltzberg (4881059) in view of Applicant Admitted Prior Art (AAPA).

In regards to Claim 2, Saltzberg discloses a method for detecting biphas-encoded data as described above. However, Saltzberg does not disclose the biphas-encoded signal is modulated as amplitude shift keyed, frequency shift keyed or phase shift keyed.

The AAPA discloses the biphas-encoded signal is modulated as amplitude shift keyed, frequency shift keyed or phase shift keyed (Specification, Page 2, lines 14-23). Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention that AAPA teaches biphas-encoded signal is modulated as amplitude shift keyed, frequency shift keyed or phase shift keyed and this is implemented in the method as described in Saltzberg so as to increase the data rate of the transmitted data and minimizing the effects of channel noise.

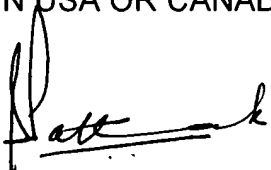
### ***Conclusion***

7. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure, it is recommended to the applicant to amend all the claims so as to be patentable over the cited prior art of record. A detailed list of pertinent references is included with this Office Action (See Attached "Notice of References Cited" (PTO-892)).

8. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Sudhanshu C. Pathak whose telephone number is (571)-272-3038. The examiner can normally be reached on M-F: 9am-6pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Chieh M. Fan can be reached on (571)-272-3042. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.



Sudhanshu C. Pathak  
Examiner  
Art Unit 2611